4.7 Summary of MW-05D Packer Test

The borehole, MW-05D was constructed as a 6.0-inch diameter open borehole drilled to a depth of 198 feet BTOC. 6.0-inch diameter steel casing extends to an approximate depth of 39 feet below ground surface (bgs), where it narrows to a 5.5-inch borehole.

MW-05D was tested using a 3.5-inch packer assembly in three zones.

Water level measurements taken during the testing of all onsite wells were made from top of casing. For reporting purposes, water level values discussed in this text were taken from logged data, not from field observations. The report appendix contains all packer test data and field notes.

4.7.1 Zone #1-Interval: SWL - 76.0'

Zone 1 was tested on August 13, 2004. The borehole segment from SWL-76.0' BTOC was tested by inflating the single packer assembly. Prior to the inflation of the packer, the static water level of the borehole was 68.22'. Following the inflation of the packer, water levels in the pumping zone and lower interval were 67.81' and 68.21', respectively.

Following inflation the water level in the pumping interval continued to rise due to cascading water from a fracture located at 48.0' BTOC. The increase in water level proceeded at such a slow pace that a slug consisting of one gallon of water was introduced into the zone to determine whether head pressure in the upper zone was in fact increasing. The results of the slug indicated that the water level was increasing, and continued to do so for 71 minutes at which time the water level had reached 59.87' BTOC. The slow pace of infiltration into the zone indicated a substantial amount of time was needed before the water level would have been high enough to enable sampling. The zone was not sampled and the packer string was moved to Zone 2.

4.7.2 Zone #2-Interval: SWL-145.0'

Zone 2 was tested on August 17, 2004. The segment of borehole from SWL-145.0' BTOC was tested using a single packer assembly. The packer was already inflated from the testing of zone 3. Prior to pumping the zone, water levels in the pumping and lower intervals were 69.67' and 69.56' BTOC, respectively.

Zone 2 was pumped at rate of 0.70 gpm for one (1) minute, and then the rate was increased to 2.46 gpm for one (1) minute. At this point, the rate was increased to 3.0 gpm for one (1) minute and then 4.15 gpm where it remained until the pump was shut-off.

At the cessation of pumping, the water levels in the pumping and upper zone were 73.61' and 69.57' BTOC, respectively.

Zone 2 was allowed to recover three (3) minutes at which time the water level recovered 100% of the pre-pumping level.

4.7.3 Zone #3-Interval: 148.0' - TD

Zone 3 was tested on August 17, 2004. The segment of borehole from 148.0' to TD BTOC was tested using a single packer assembly. Prior to the inflation of the packer, the static water level of the borehole was 68.85'. After inflation, the water levels in the upper and pumping interval were 68.96' and 69.48' BTOC. Prior to pumping the zone, water levels in the upper and pumping intervals were 68.97' and 69.59' BTOC respectively.

Zone 3 was pumped at rate of 1.30 gpm for two (2) minutes. The rate was increased to 3.0 gpm for seven (7) minutes. Two (2) minutes later, the rate was increased to 9.0 gpm for one (1) minute until the rate was raised to 10.0 gpm for a duration of eleven (11) minutes. At this point, the rate was increased to 11.0 gpm until the pump was shut-off.

At the cessation of pumping, the water levels in the upper and pumping zone were 68.97' and 69.91' BTOC, respectively.

Zone 3 was allowed to recover two (2) minutes at which time the water level recovered 100% of the pre-pumping level. Logging continued for the testing of zone 2.

4.8 Summary of MW-09 Packer Test

The borehole, MW-09 was constructed as an 8.0-inch diameter open borehole drilled to a depth of 100 feet below ground surface (bgs). Eight-inch diameter steel casing extends to an approximate depth of 28 feet bgs.

MW-09 was tested using a 5.4-inch packer assembly in three zones.

Water level measurements taken during the testing of all onsite wells were made from ground surface. For reporting purposes, water level values discussed in this text were taken from logged data, not from field observations. The report appendix contains all packer test data and field notes.

4.8.1 Zone #1-Interval: SWL - 79.0'

As a result of an interconnection between the pumping and lower intervals in the previous interval (SWL-74.0'), the single packer assembly was lowered five (5) feet to create an interval of SWL-79.0'. Prior to the inflation of the packer, the static water level of the borehole was 52.56'. Two minutes after the initial inflation of the packer, more nitrogen was added to the packer to create a better seal in the borehole. After this, water levels in the pumping zone and lower interval were 51.02' and 50.71' bgs, respectively. Prior to pumping the zone, water levels in the pumping and lower intervals were 51.10' and 48.66' bgs respectively.

This interval was pumped at a rate of 2.0 gpm for two (2) minutes before the rate fell to 1.85 gpm. The rate fell again four (4) minutes later to 1.70 gpm, at which point the rate was raised back to 2.0 gpm. The pumping rate continued to fall until it reached 1.80 gpm sixteen (16) minutes later. At this point, the pumping rate was lowered to 1.70 gpm for two (2) minutes, and then lowered to 1.45 gpm for five (5) minutes. The pumping rate was then decreased to 1.25 gpm until the pump was shut-off.

At the cessation of pumping, water levels in the pumping and lower zones were 62.78' and 46.37' bgs respectively.

Zone 2 was allowed to recover for nineteen (19) minutes, at which time the water level recovered 58%.

4.8.2 Zone #2-Interval: 83.0' - TD

Zone 2 was tested on August 30, 2004. The segment of borehole from 83.0' to TD bgs was tested using a single packer assembly. The packer was already inflated from the testing of zone #2. Prior to pumping the zone, water levels in the upper and pumping intervals were 54.88' and 43.74' bgs respectively.

Zone 3 was pumped at an initial rate of 1.0 gpm. The rate steadily increased to 1.50 gpm over the course of twelve (12) minutes. It was decreased to 1.4 gpm and remained at this rate for the duration of the test.

At the cessation of pumping, the water levels in the upper and pumping zone were 55.31' and 92.90' bgs, respectively.

Zone 3 was allowed to recover twenty-four (24) minutes at which time the water level recovered 75% of the pre-pumping level.

4.9 Summary of PS-3 Packer Test

The borehole PS-3 was constructed as an 8.0-inch diameter open borehole drilled to a depth of 560 feet bgs. Eight-inch diameter steel casing extends to an approximate depth of 95 feet bgs.

PS-3 was tested using a 5.4-inch packer assembly in five zones.

Water level measurements taken during the testing of all onsite wells were made from ground surface. For reporting purposes, water level values discussed in this text were taken from logged data, not from field observations. The report appendix contains all packer test data and field notes.

4.9.1 Zone #1-Interval: SWL - 130.0'

Zone 1 was tested on August 18, 2004. The borehole segment from SW -130.0' bgs was tested by inflating a single packer assembly. Prior to inflation of the packer, the static water level of the borehole was 25.66'. Following the inflation of the packer, water levels in the pumping zone and lower interval were 23.88' and 24.01', respectively. Prior to pumping the zone, water levels in the pumping and lower intervals were 24.38' and 25.00' respectively.

Zone 1 was pumped at a rate of 4.0 gpm for sixty-eight (68) minutes. The rate was decreased to 2.0 gpm for three (3) minutes, and then decreased to 1.5 gpm for seven (7) minutes. The pumping rate was decreased to 1.0 gpm until the pump was shut-off.

At the cessation of pumping, water levels in the pumping and lower zones were 112.26' and 27.79' bgs, respectively.

Zone 1 was allowed to recover twenty-two (22) minutes, at which time the water level recovered 10%.

4.9.2 Zone #2-Interval: 130.0'-230.0'

Zone 2 was tested on August 19, 2004. The segment of borehole from 130.0'-230.0' bgs was tested using a straddle packer assembly. Prior to inflation, static water level in the borehole was 26.14'. After inflation of the packers, water levels in the upper, pumping, and lower zones were 23.46', 23.89', and 23.48' bgs, respectively. Prior to pumping the zone, water levels in the upper, pumping, and lower intervals were 24.19', 25.51', and 25.59' respectively.

Zone 2 was pumped at rate of 6.67 gpm for nine (9) minutes. While pumping at this rate, more nitrogen was added to the packers to create a better seal in the borehole. The rate was then decreased to 3.75 gpm for twenty-four (24) minutes. The rate was decreased to 2.85 gpm for seventeen (17) minutes, and then reduced to 2.22 gpm until the pump was shut-off.

At the cessation of pumping, the water levels in the upper, pumping, and lower zones were 27.56', 176.76', and 28.22' bgs, respectively.

Zone 2 was allowed to recover twenty-two (22) minutes at which time the water level recovered 23% of the pre-pumping level.

4.9.3 Zone #3-Interval: 490.0' - TD

Zone 3 was tested on August 31, 2004. The segment of borehole from 490.0' to TD bgs was tested using a single packer assembly. Prior to inflation, static water level in the borehole was 23.03' bgs. After inflation, water levels in the upper and pumping zone were 23.15' and 23.16' bgs, respectively. Prior to pumping the interval, the water levels in the upper and pumping zone were 23.15' and 26.35' bgs, respectively.

Zone 3 was pumped at rate of 7.65 gpm for four (4) minutes. The rate was then increased to 15.0 gpm until the pump was shut-off.

At the cessation of pumping, the water levels in the upper and pumping zone were 23.54' and 30.39' bgs, respectively.

Zone 3 was recovered completely after 30 seconds of recovery.

4.9.4 Zone #4-Interval: 360.0'-490.0'

Zone 4 was tested on September 2, 2004. The segment of borehole from 360.0'-490.0' was tested using a straddle packer assembly. Prior to inflation, static water level in the borehole was 26.40' bgs. After inflation of the packers, water levels in the upper, pumping, and lower intervals were 24.51', 23.86', and 24.65' bgs. Prior to pumping, water levels in the upper and pumping zone were 24.91', 25.42', and 26.46' bgs, respectively.

Zone 4 was pumped at rate of 15.0 gpm for eight (8) minutes. During this time, more nitrogen was added to the packers to ensure a better seal in the borehole. The rate was decreased to 12.0 gpm until the pump was shut-off.

At the cessation of pumping, the water levels in the upper, pumping, and lower zones were 27.07', 324.79', and 26.62' bgs, respectively.

Zone 4 was allowed to recover fifty-four (54) minutes at which time the water level recovered 91% of the pre-pumping level.

4.9.5 Zone #5-Interval: 230.0'-360.0'

Zone 5 was tested on September 3, 2004. The segment of borehole from 230.0'-360.0' bgs was tested using a straddle packer assembly. Prior to inflation, the static water level in the borehole was 27.58' bgs. After inflation, the water levels in the upper, pumping, and lower zones were 25.25', 25.13', and 25.39' bgs. Prior to pumping, water levels in the upper, pumping, and lower zones were 27.96', 48.98', and 27.59' bgs, respectively.

Zone 5 was pumped at rate of 5.5 gpm for thirty-one (31) minutes. The rate as decreased to 1.0 gpm until the pump was shut-off.

At the cessation of pumping, the water levels in the upper, pumping, and lower zones were 35.12', 324.22', and 26.53' bgs, respectively.

Zone 5 was allowed to recover seventeen (17) minutes at which time the water level recovered 2% of the pre-pumping level.

5.0 Discussion

5.1 MW-01

Data collected during the packer testing of MW-01 indicate the primary water-bearing interval within MW-01 to be Zone 2 (75.0' to TD). Zone 2 was pumped at a rate of 6.0 gpm for 11 minutes. At the cessation of pumping, less than one foot of drawdown was observed. Zone 1 (SWL to 71.0') was pumped at a rate of 2.0 gpm for approximately 20 minutes resulting in 5.04 feet of drawdown.

Following inflation of the packer during the testing of Zone 2, the hydraulic head pressure of the upper composite borehole began to increase. Prior to pumping the interval a hydraulic head pressure differential of 0.99 feet between Zone 2 and the composite borehole above, was recorded. This suggests a downward hydraulic gradient within MW-01. Specific capacity calculations can be found in the table following the discussion.

5.2 MW-02

Data collected during the packer testing of MW-2 indicate the primary water-bearing interval within MW-2 to be Zone 1 (SWL – 69'). Zone 1 was pumped at rate of 3.15 gpm for 19 minutes. At the cessation of pumping, 0.11 feet of drawdown was observed in Zone 1. Zone 2 (73' – TD) was pumped at a rate of 3.8 gpm for 13 minutes. At the cessation of pumping, 44.89 feet of drawdown was observed in Zone 2.

Following inflation of the packer during the testing of Zone 1, the hydraulic head pressure of the lower composite borehole began to decrease. Prior to pumping the interval a hydraulic head pressure differential of 3.27 feet between Zone 1 and the composite borehole below, was recorded. This suggests a downward hydraulic gradient within MW-02.

5.3 MW-03

Data collected during the packer testing of MW-3 indicate the primary water-bearing interval within MW-3 to be Zone 2 (87' – TD). Zone 2 was pumped at rate of 5.0 gpm for 3 minutes. At the cessation of pumping, 7.7 feet of drawdown was observed in Zone 2. Zone 1 (SWL – 83') was pumped at a rate of 0.65 gpm for 13 minutes. At the cessation of pumping, 15.45 feet of drawdown was observed in Zone 1.

Following inflation of the packer during the testing of Zone 1, the hydraulic head pressure of the pumping zone began to increase. Prior to pumping the interval a hydraulic head pressure differential of 2.63 feet between Zone 1 and the composite borehole below, was recorded. This suggests a downward hydraulic gradient within MW-03.

5.4 MW-04

Data collected during the packer testing of MW-4 indicate the primary water-bearing interval within MW-4 to be Zone 2 (72' - TD). Zone 2 was pumped at rate of 1.9 gpm for 2 minutes. At the cessation of pumping, 25.12 feet of drawdown was observed in Zone 2. Zone 1 (SWL – 68') was pumped at a rate of 1.1 gpm for 11 minutes at which time the zone dewatered.

Following inflation of the packer during the testing of Zone 1, the hydraulic head pressure of the lower composite borehole began to decrease, and the head pressure of Zone 1 remained elevated. Prior to pumping the interval a hydraulic head pressure differential of 2.9 feet between Zone 1 and the composite borehole below, was recorded. This suggests a downward hydraulic gradient within MW-04.

5.5 MW-5D

Data collected during the packer testing of MW-5D indicate the primary water-bearing interval within MW-5D to be Zone 3 (148' - TD). Zone 3 was pumped at rate of 10.0 gpm for 25 minutes. At the cessation of pumping, 0.37 feet of drawdown was observed in Zone 3. Zone 2 (SWL -145') was pumped at a rate of 4.15 gpm for 76 minutes. At the cessation of pumping, 4.64 feet of drawdown was observed in Zone 2.

Following inflation of the packer during the testing of Zone 3, the hydraulic head pressure of the upper composite borehole began to increase. Prior to pumping the interval a hydraulic head pressure differential of 0.62 feet between Zone 3 and the composite borehole above, was recorded. This suggests a downward hydraulic gradient within MW-5D.

5.6 MW-09

Data collected during the packer testing of MW-5D indicate the primary water-bearing interval within MW-09 to be Zone 1 (SWL – 79'). Zone 1 was pumped at rate of 1.25 gpm for 7 minutes. At the cessation of pumping, 11.68 feet of drawdown was observed in Zone 1. Zone 2 (83' – TD) was pumped at a rate of 1.4 gpm for 4 minutes. At the cessation of pumping, 49.07 feet of drawdown was observed in Zone 2.

Following inflation of the packer during the testing of Zone 1, the hydraulic head pressure of the lower composite borehole began to increase. Prior to pumping the interval a hydraulic head pressure differential of 2.49 feet between Zone 1 and the composite borehole below, was recorded. This suggests an upward hydraulic gradient within MW-09.

5.7 PS-3

Data collected during the packer testing of MW-2 indicate the primary water-bearing interval within PS-3 to be the area from 360' to TD. This area includes Zone 3 (390' – TD) and Zone 4

(360' – 490'). Zone 3 was pumped at rate of 15.0 gpm for 14 minutes. At the cessation of pumping, 7.23 feet of drawdown was observed in Zone 3. Zone 4 was pumped at a rate of 12.0 gpm for 16 minutes. At the cessation of pumping, 298.58 feet of drawdown was observed in Zone 4.

Zone 1 (SWL – 130') was pumped at rate of 1.0 gpm for 11 minutes. At the cessation of pumping, 87.88 feet of drawdown was observed in Zone 1. Zone 2 (130' – 230') was pumped at a rate of 2.22 gpm for 20 minutes. At the cessation of pumping, 151.25 feet of drawdown was observed in Zone 2. Zone 5 (230' – 360') was pumped at rate of 1.0 gpm for 75 minutes. At the cessation of pumping, 275.22 feet of drawdown was observed in Zone 5.

Following inflation of the packers during the testing of Zone 5, the hydraulic head pressure of the isolated interval began to decrease. Prior to pumping the interval a hydraulic head pressure differential of 21.24 feet between Zone 5 and the composite borehole above, was recorded. A hydraulic head pressure differential of 21.32 feet was recorded between Zone 5 and the lower composite borehole. This suggests a downward hydraulic gradient from the area above 230' and an upper hydraulic gradient from the area below 360'.

Table 7. Specific Capacity Calculations

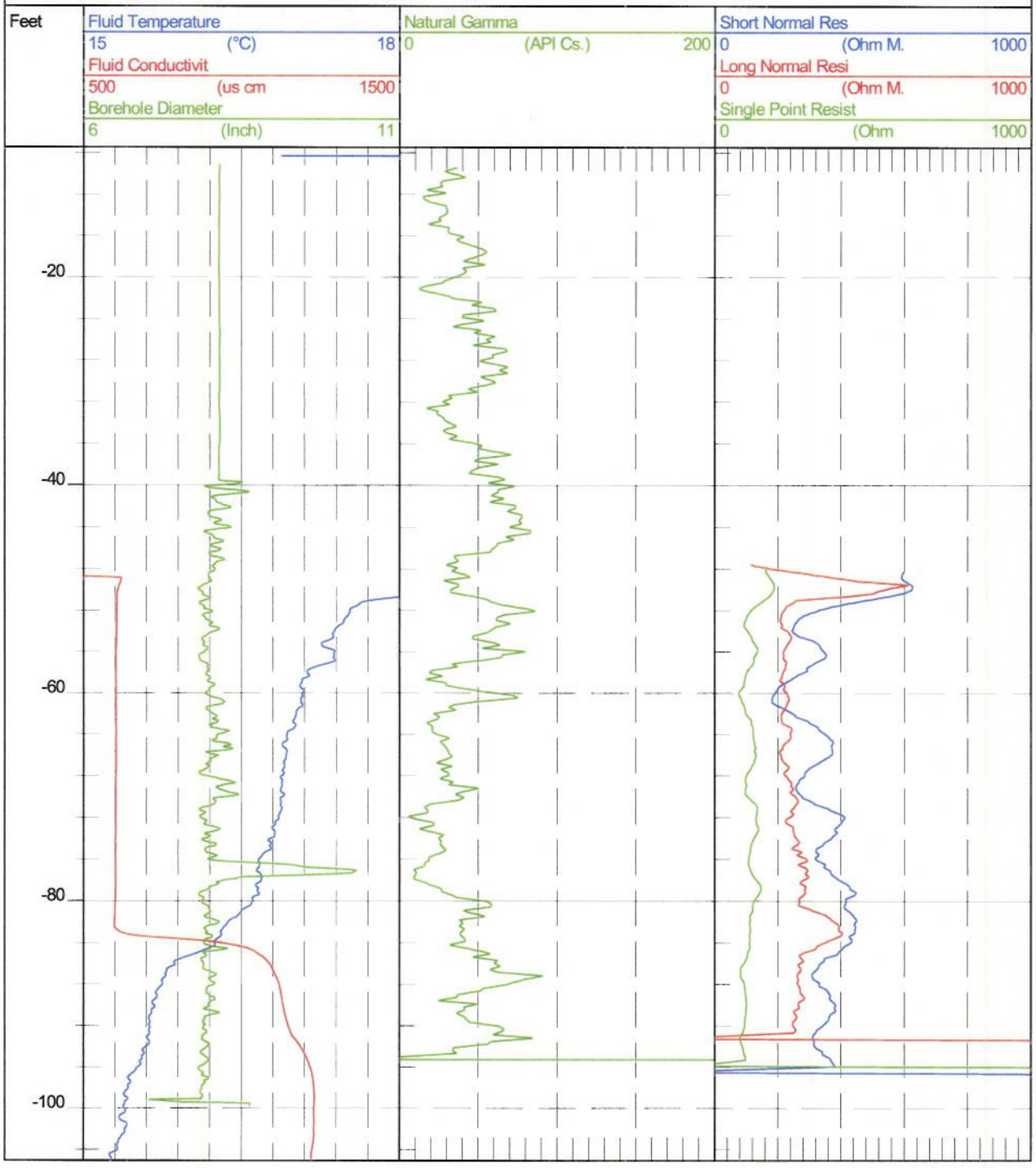
Zone	Pumping Rate	Specific Capacity	Comments
MW-01 Zone 1	2.0 gpm	0.400	Good Packer Seal
MW-01 Zone 2	6.0 gpm	11.32	Good Packer Seal
MW-02 Zone 1	3.15 gpm	28.64	Good Packer Seal
MW-02 Zone 2	3.8 gpm	0.085	Good Packer Seal
MW-03 Zone 1	0.63 gpm	0.041	Good Packer Seal
MW-03 Zone 2	5.0 gpm	0.649	Good Packer Seal
MW-04 Zone 1	1.1 gpm	-	Zone Dewatered
MW-04 Zone 2	1.9 gpm	0.076	Good Packer Seal
MW-5D Zone 1	-	-	Not Tested
MW-5D Zone 2	4.15 gpm	0.894	Good Packer Seal
MW-5D Zone 3	10.0 gpm	27.027	Good Packer Seal
MW-09 Zone 1	1.25 gpm	0.107	Good Packer Seal
MW-09 Zone 2	1.4 gpm	0.029	Good Packer Seal
PS-3 Zone 1	1.0 gpm	0.011	Good Packer Seal
PS-3 Zone 2	2.22 gpm	0.015	Good Packer Seal
PS-3 Zone 3	15.0 gpm	2.075	Slight Interconnection
PS-3 Zone 4	12.0 gpm	0.040*	Good Packer Seal *Head Not Constant
PS-3 Zone 5	1.0 gpm	0.004	Good Packer Seal

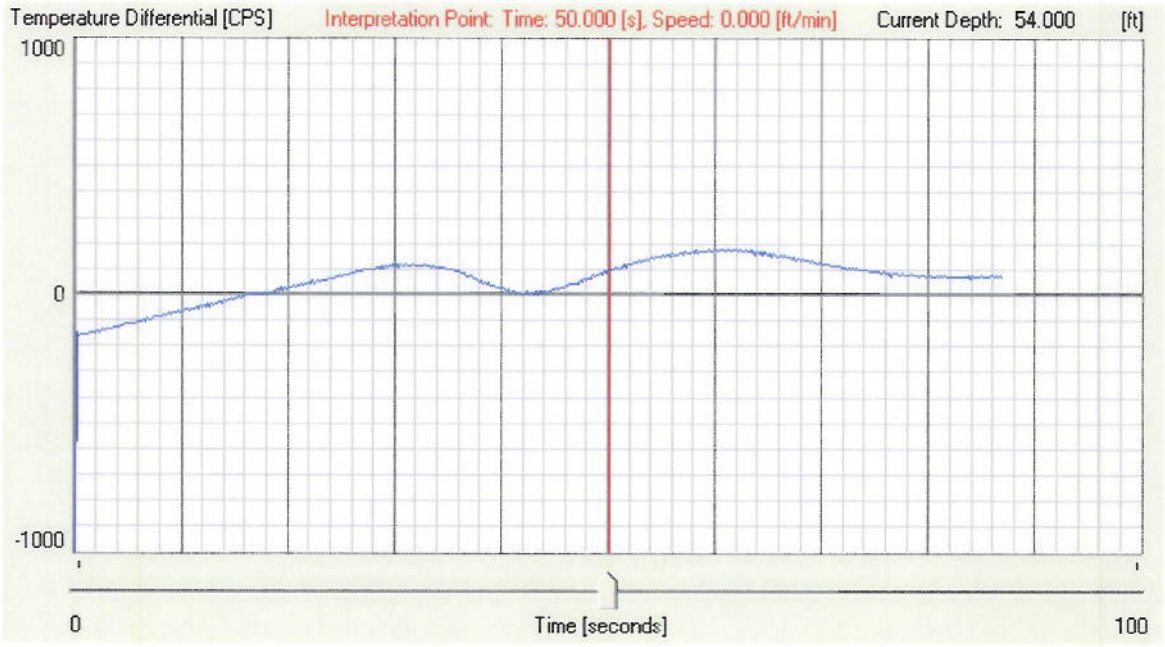
The findings and conclusions presented in this report are the result of fieldwork, data analysis and interpretations completed by Earth Data personnel as of this date. This report has been prepared in response to a request from Loureiro and was prepared using generally accepted geophysical practices for the exclusive use of Loureiro. No other warranty, expressed or implied, is made.

APPENDIX A

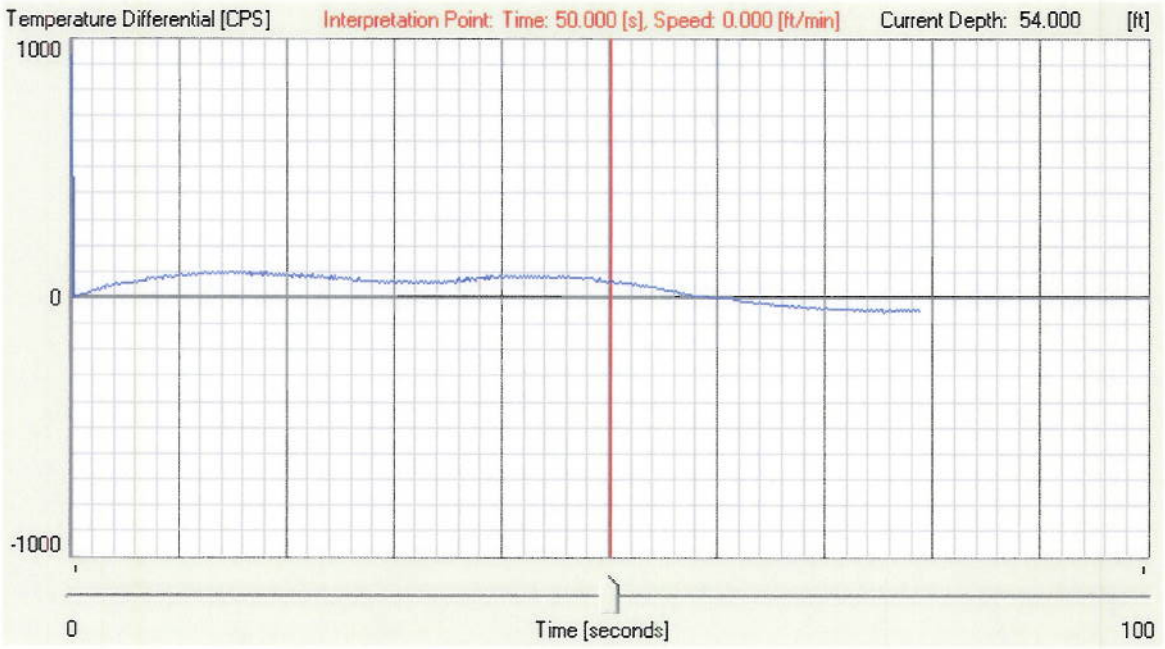
Mw- 01

Well Name: mw-01
Location: LEA- Reading
Reference: toc

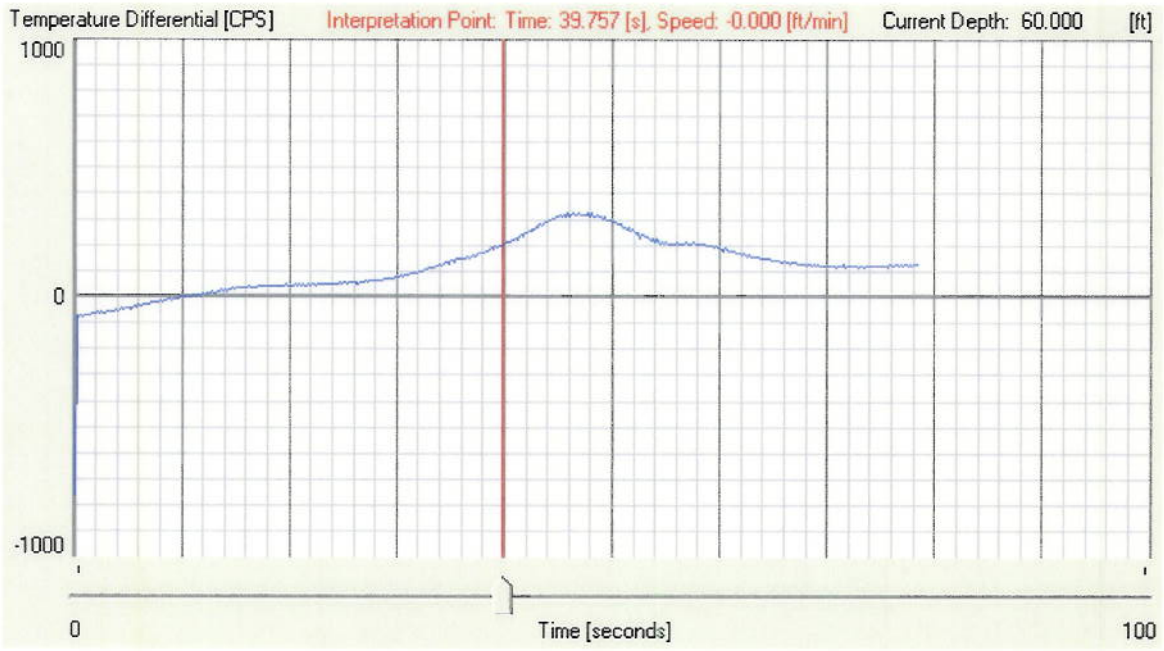



Temperature Differential [CPS]
Interpretation Point: Time: 50.000 [s], Speed: 0.000 [ft/min]
Current Depth: 54.000
[ft]
1000
0
-1000
0
Time [seconds]
100

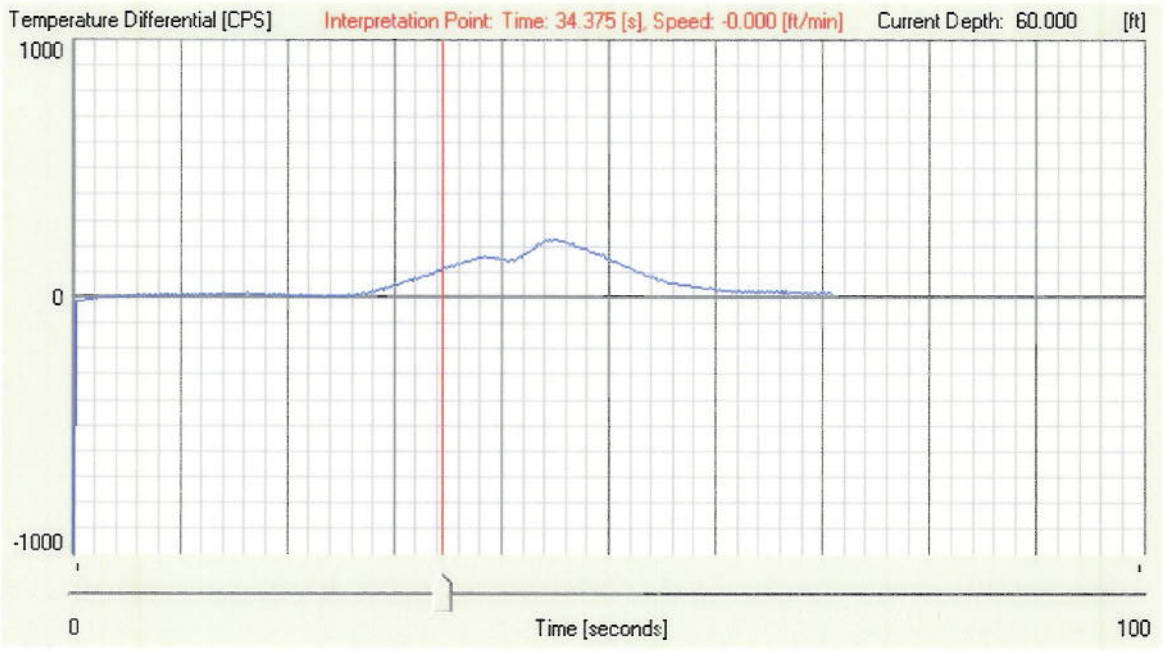
54.1


Temperature Differential [CPS]
Interpretation Point: Time: 50.000 [s], Speed: 0.000 [ft/min]
Current Depth: 54.000
[ft]
1000
0
-1000
0
Time [seconds]
100

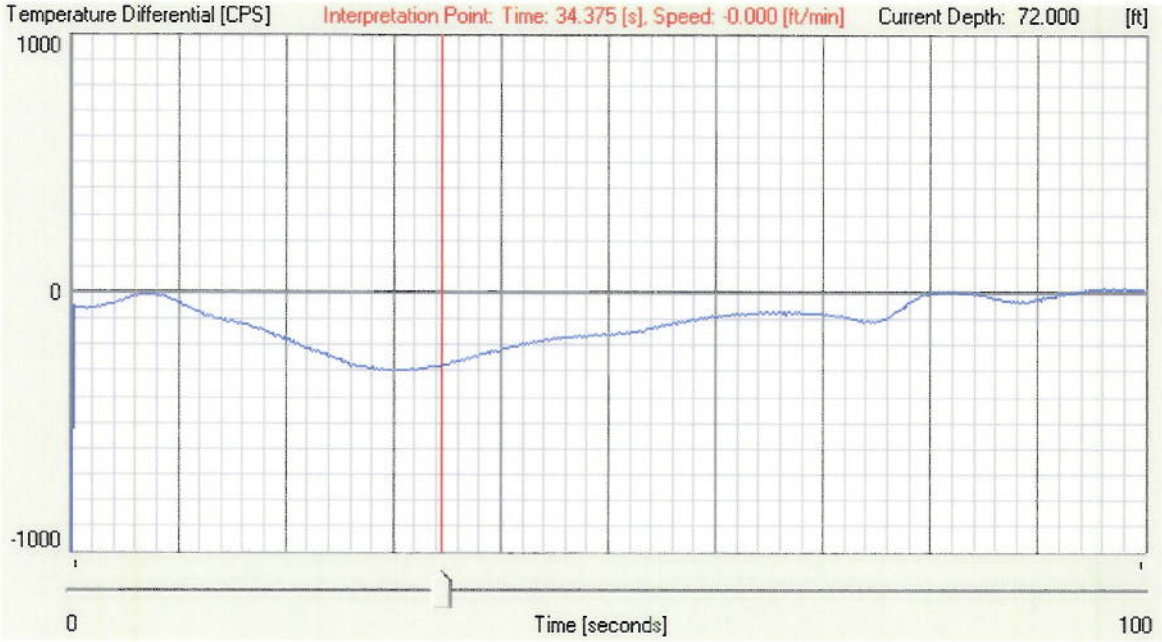
54.2


Temperature Differential [CPS]
Interpretation Point: Time: 39.757 [s], Speed: -0.000 [ft/min]
Current Depth: 60.000
[ft]
1000
0
-1000
0
Time [seconds]
100

60.1


Temperature Differential [CPS]
Interpretation Point: Time: 34.375 [s], Speed: -0.000 [ft/min]
Current Depth: 60.000
[ft]
1000
0
-1000
0
Time [seconds]
100

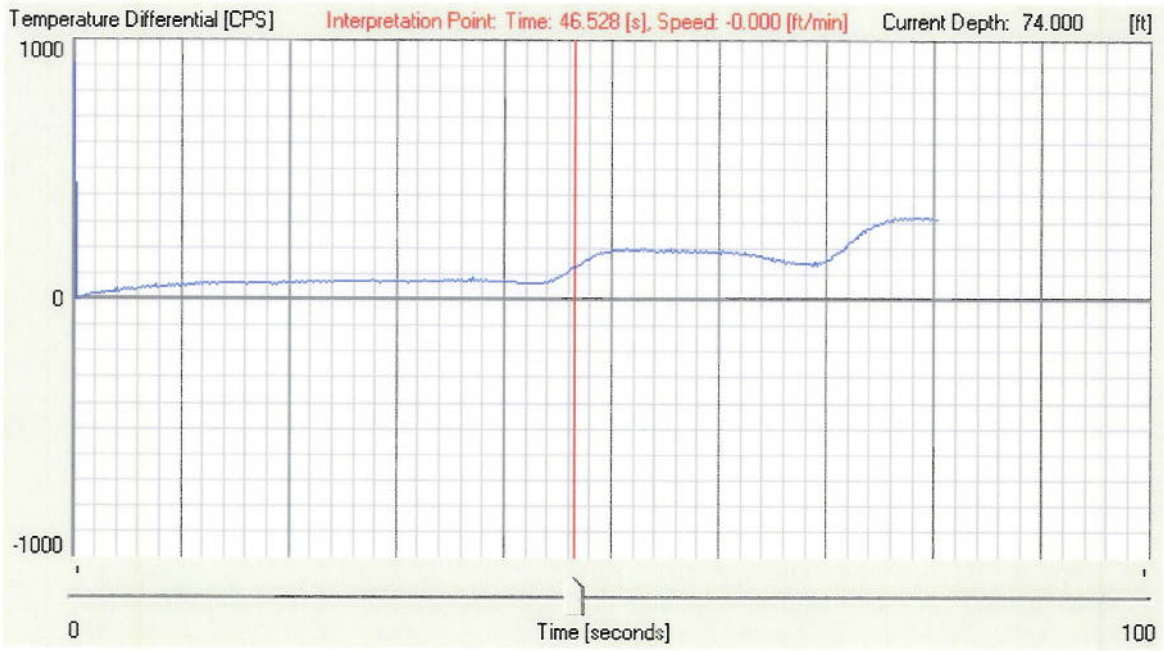
60.2


Temperature Differential [CPS]
Interpretation Point: Time: 34.375 [s], Speed: -0.000 [ft/min]
Current Depth: 72.000
[ft]
1000
0
-1000
0
Time [seconds]
100

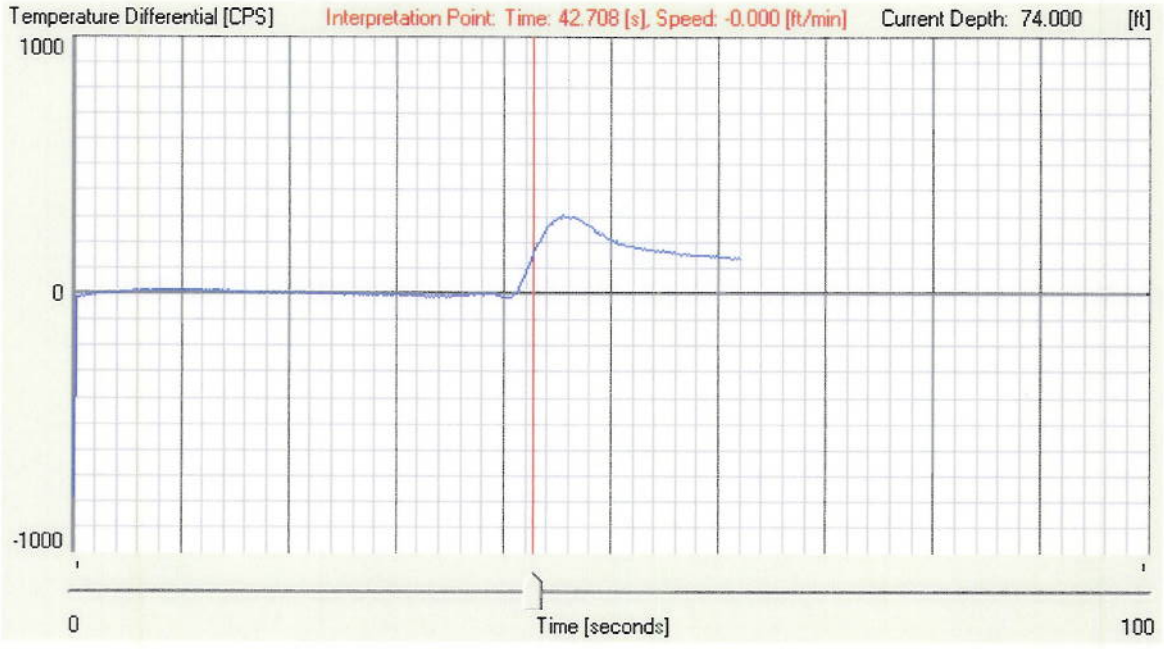
72.1


Temperature Differential [CPS]
Interpretation Point: Time: 50.000 [s], Speed: 0.000 [ft/min]
Current Depth: 73.000
[ft]
1000
0
-1000
0
Time [seconds]
100

73.1


Temperature Differential [CPS]
Interpretation Point: Time: 46.528 [s], Speed: -0.000 [ft/min]
Current Depth: 74.000
[ft]
1000
0
-1000
0
Time [seconds]
100

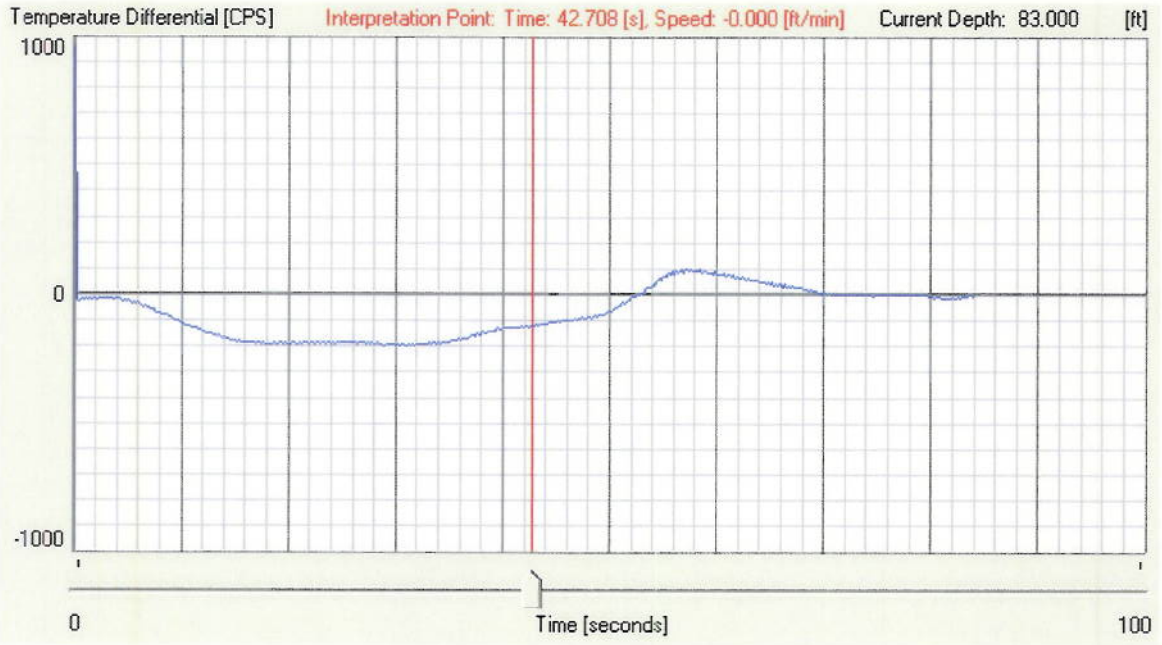
74.1


Temperature Differential [CPS]
Interpretation Point: Time: 42.708 [s], Speed: -0.000 [ft/min]
Current Depth: 74.000
[ft]
1000
0
-1000
0
Time [seconds]
100

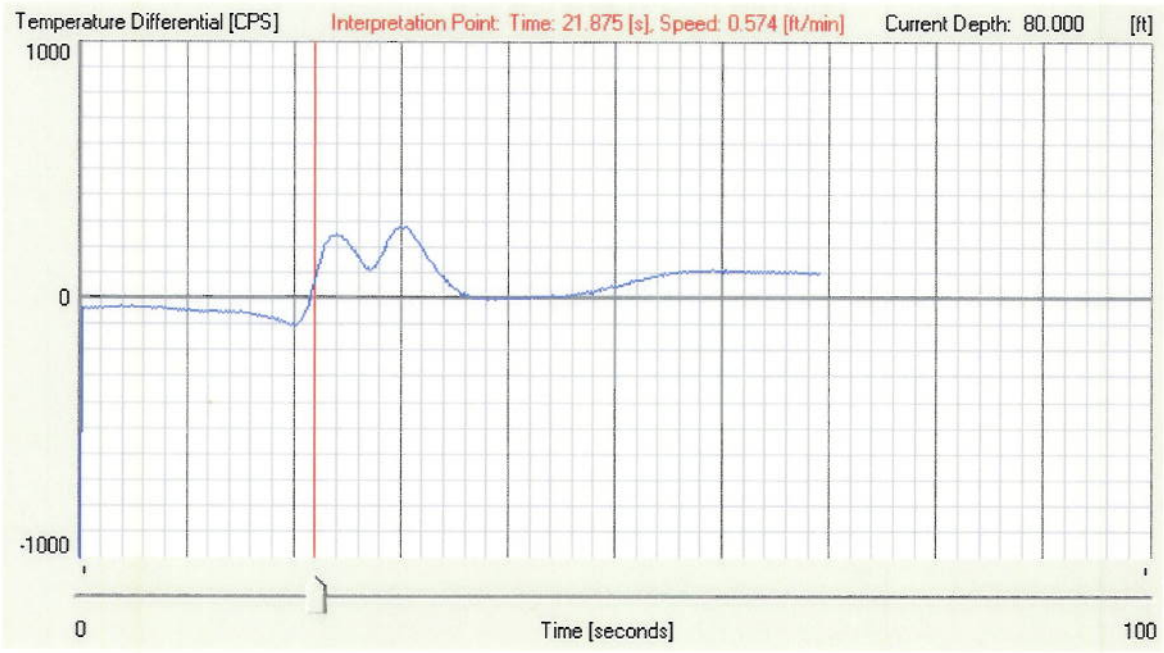
74.2


Temperature Differential [CPS]
Interpretation Point: Time: 42.708 [s], Speed: -0.000 [ft/min]
Current Depth: 82.000
[ft]
1000
0
-1000
0
Time [seconds]
100

82.1


Temperature Differential [CPS]
Interpretation Point: Time: 42.708 [s], Speed: -0.000 [ft/min]
Current Depth: 83.000
[ft]
1000
0
-1000
0
Time [seconds]
100

83.1


Temperature Differential [CPS]
Interpretation Point: Time: 21.875 [s], Speed: 0.574 [ft/min]
Current Depth: 80.000
[ft]
1000
0
-1000
0
Time [seconds]
100

80.1


Temperature Differential [CPS]
Interpretation Point: Time: 40.278 [s], Speed: -0.000 [ft/min]
Current Depth: 80.000
[ft]
1000
0
-1000
0
Time [seconds]
100

80.2


Temperature Differential [CPS]
Interpretation Point: Time: 40.278 [s], Speed: -0.000 [ft/min]
Current Depth: 90.000 [ft]
1000
0
-1000
0
Time [seconds]
100

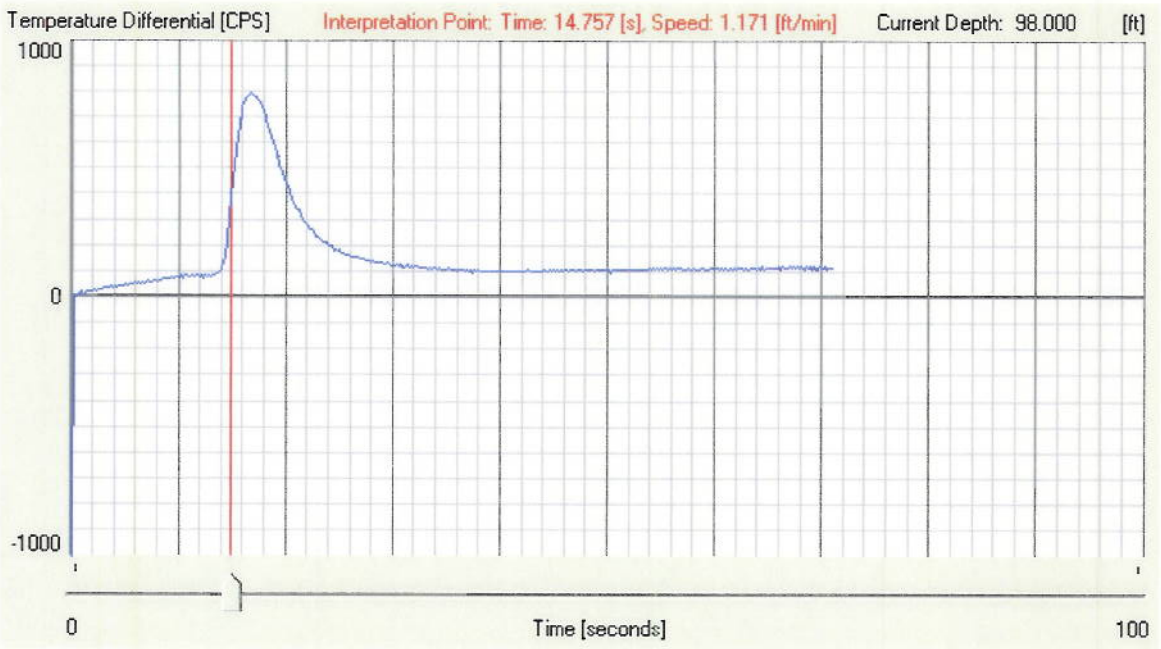
90.1


Temperature Differential [CPS]
Interpretation Point: Time: 50.000 [s], Speed: 0.000 [ft/min]
Current Depth: 90.000 [ft]
1000
0
-1000
0
Time [seconds]
100

90.2


Temperature Differential [CPS]
Interpretation Point: Time: 30.382 [s], Speed: -0.000 [ft/min]
Current Depth: 98.000
[ft]
1000
0
-1000
0
Time [seconds]
100

98.1


Temperature Differential [CPS]
Interpretation Point: Time: 14.757 [s], Speed: 1.171 [ft/min]
Current Depth: 98.000
[ft]
1000
0
-1000
0
Time [seconds]
100

98.2

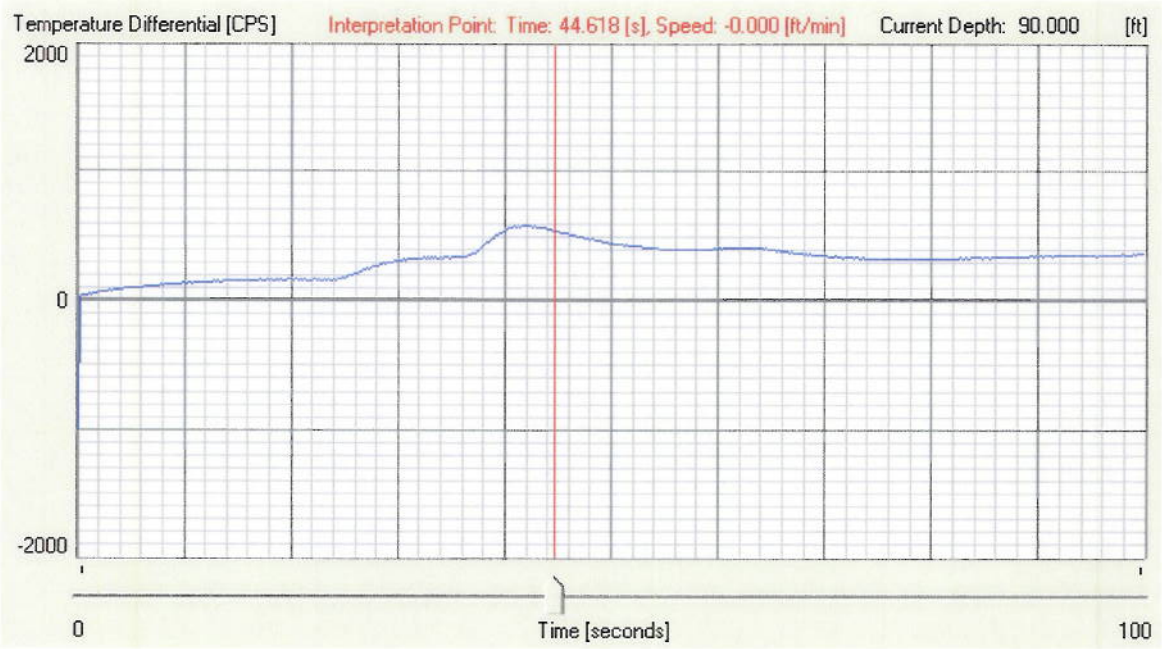

Temperature Differential [CPS]
Interpretation Point: Time: 26.736 [s], Speed: 0.270 [ft/min]
Current Depth: 98.000
[ft]
1000
0
-1000
0
Time [seconds]
100

98.3

Pumping @1.5 gpm

98.1

98.2


Temperature Differential [CPS]
Interpretation Point: Time: 44.618 [s], Speed: -0.000 [ft/min]
Current Depth: 90.000
[ft]
2000
0
-2000
0
Time [seconds]
100

90.1


Temperature Differential [CPS]
Interpretation Point: Time: 50.000 [s], Speed: 0.000 [ft/min]
Current Depth: 80.000
[ft]
1000
0
-1000
0
Time [seconds]
100

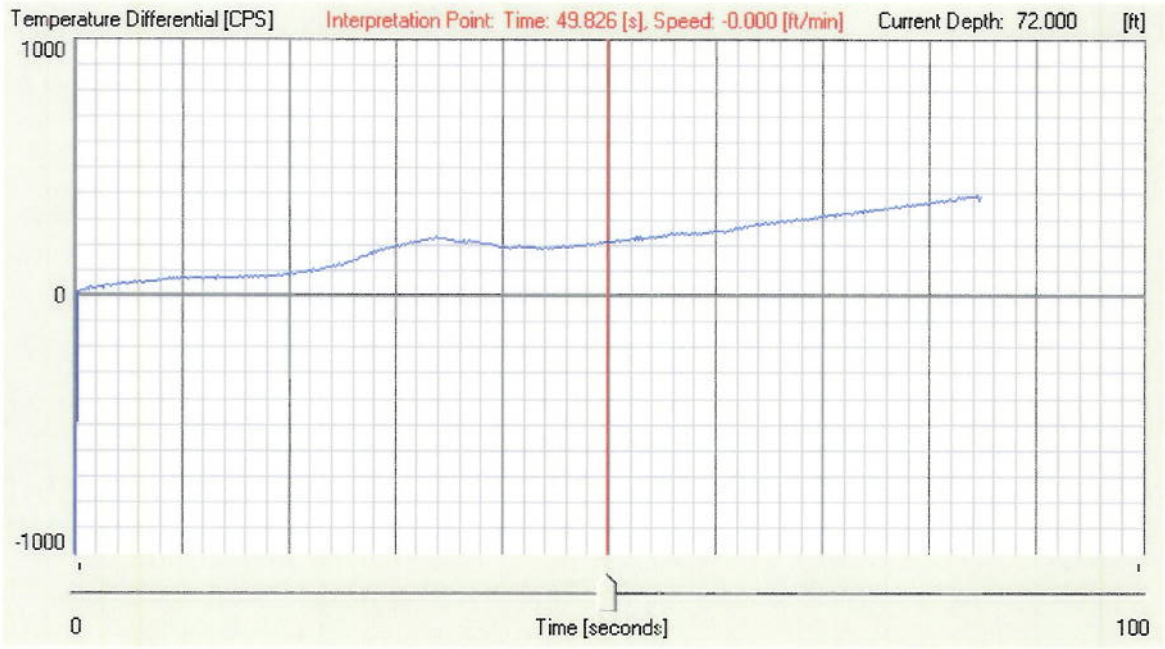
80.1


Temperature Differential [CPS]
Interpretation Point: Time: 38.194 [s], Speed: -0.000 [ft/min]
Current Depth: 80.000
[ft]
1000
0
-1000
0
Time [seconds]
100

80.2


Temperature Differential [CPS]
Interpretation Point: Time: 50.000 [s], Speed: -0.000 [ft/min]
Current Depth: 74.000
[ft]
1000
0
-1000
0
Time [seconds]
100

74.1



72.1

60.1

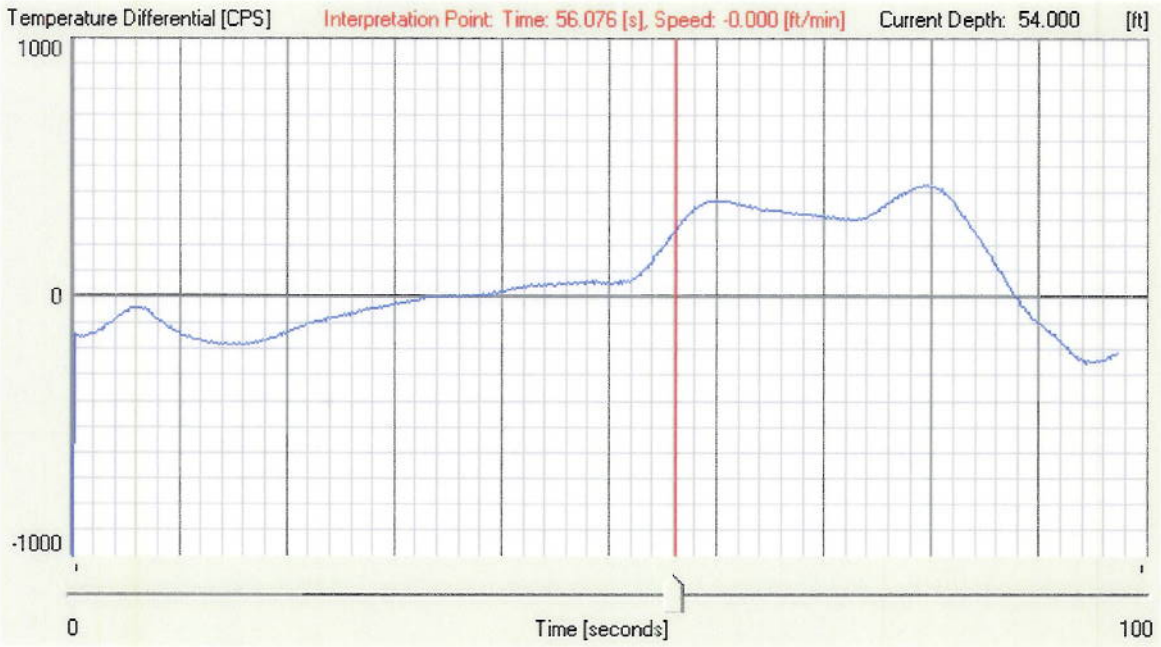
graph not saved for 60.2 – no significant flow


Temperature Differential [CPS]
Interpretation Point: Time: 34.896 [s], Speed: -0.000 [ft/min]
Current Depth: 60.000
[ft]
1000
0
-1000
0
Time [seconds]
100

60.3


Temperature Differential [CPS]
Interpretation Point: Time: 39.236 [s], Speed: -0.000 [ft/min]
Current Depth: 54.000
[ft]
1000
0
-1000
0
Time [seconds]
100

54.1


Temperature Differential [CPS]
Interpretation Point: Time: 56.076 [s], Speed: -0.000 [ft/min]
Current Depth: 54.000
[ft]
1000
0
-1000
0
Time [seconds]
100

54.2

EARTH DATA
NORTHEAST, INC.

PAKER TESTING
ADMINISTRATIVE SHEET

WELL: MW-01

PROJECT: Loureiro · Reading - Baldwin

W.O.#: F50287

PURPOSE OF TESTING: Hydrologic Properties & Discreet Sampling

HISTORY OF TESTING: —

DESCRIPTION OF MEASURING POINT: Casing

G.S. TO M.P.:

ELEVATION: —

PRE-TEST OPEN HOLE WATER LEVEL: 50.71'

PUMPING EQUIPMENT

PUMP MODEL #: Goulds 15E15 & Grundfos RediFlow

PUMP S/N:

HP: 1.5 VOLTS: 220 PHASE: single STARTER: Ⓜ or N

NOMINAL DIAMETER OF LIFT PIPE: 2"

TYPE OF PIPE: Galvanized

METHOD OF FLOW MEASUREMENT: Digital Flowmeter

DISPOSITION OF DISCHARGE:

TIME MEASUREMENT

HOW MEASURED: computer clock

DATE START: —

DATE END: —

PACKER EQUIPMENT

FOR WELLS: 8 INS. IN DIA.

UNINFLATED DIAM: 5.4 INS.

MAX INFLATED DIAM. 10.5"

LENGTH OF BLADDER: 5'

SPREAD: — FT

BLADDER MATERIAL: Vulanized Rubber

NITROGEN PRESSURE START: 44

PSI STOP: —

PSI AMOUNT USED: —

TRANSDUCER AND DATA LOGGER

DATA LOGGER: Dataflow Datalogger w/ DASYLab Software

TRANSDUCERS	UPPER (1)	MIDDLE (2)	LOWER (3)
RANGE	0-200	0-200	0-200
REMARKS			

INTERVALS TESTED

ZONE	FROM	TO	SWL	PWL	GPM	SPECIFIC CAPACITY	REMARKS SAMPLED
OPEN HOLE							
1	SWL	71	50.71	55.47	2.0	0.42	Yes
2	75	TD	50.37	50.81	6.0	15.79	Yes
3							
4							
5							
6							
7							
8							

PERSONNEL ON TEST: DP GS

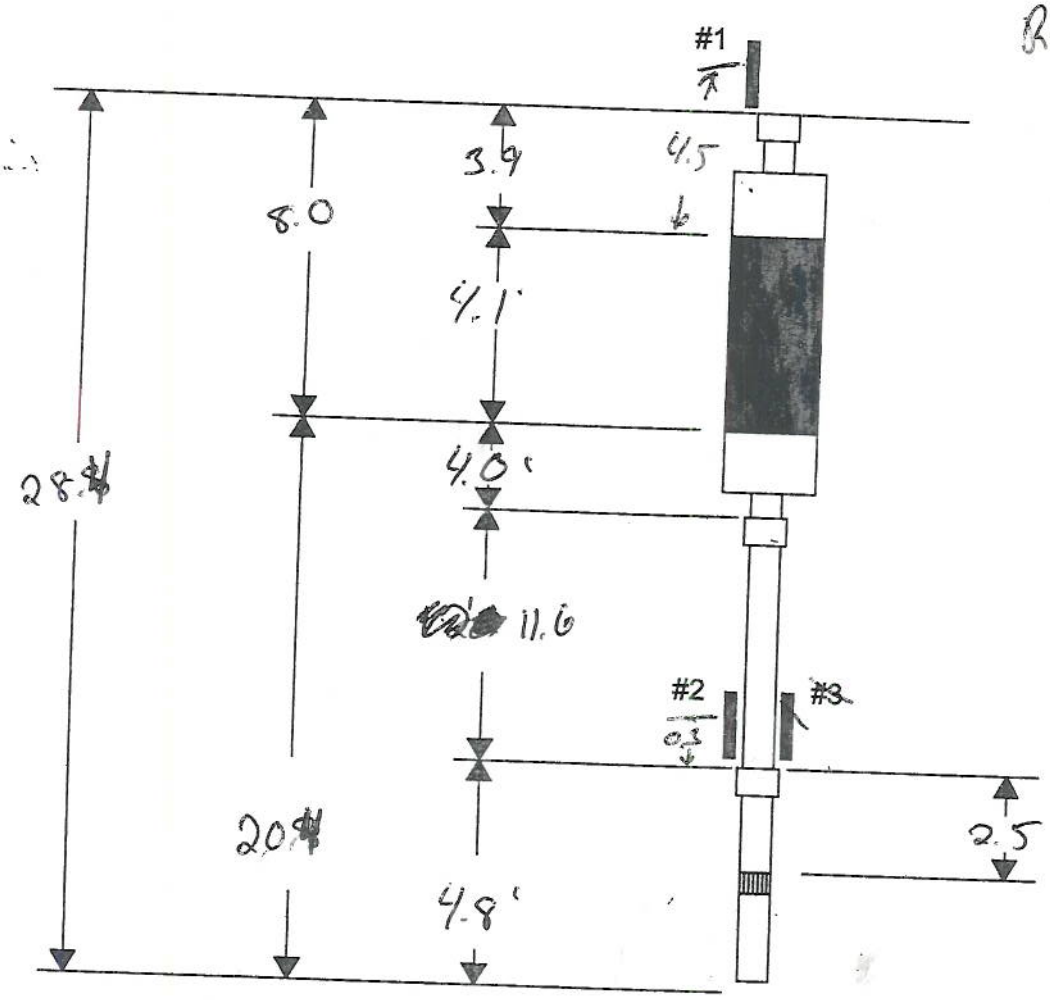
HOIST: Small

GENERATOR: Honda KW

SUPPORT VEHICLE: F250 supercab & F250

SINGLE PACKER DIMENSIONS
(UNINFLATED)

Redi Flow intake @ 65'



TOP PACKER SERIAL #

5846

TRANSDUCER #1

4264

TRANSDUCER #2

4265

TRANSDUCER #3

—

W. O. # F30287	WELL # MW-01-0204	DIAMETER OF PACKERS 5.4 in.	EARTH DATA NORTHEAST, INC. EXTON, PA
JOB NAME Laureto - Baldwin	WELL DEPTH 100 ft	DIAMETER OF PUMP 3.5 in.	
DATES FROM 8/20/04	WELL DIAMETER 8 in	DIAMETER OF LIFT PIPE 2 in.	
TO 8/26/04			